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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,520	04/01/2004	Christopher Allen Vanderberg	ITFT-PEV102US	9907
31344	7590	10/25/2005	EXAMINER	
RATNERPRESTIA			FRISTOE JR, JOHN K	
P.O. BOX 1596			ART UNIT	
WILMINGTON, DE 19899			PAPER NUMBER	

3751

DATE MAILED: 10/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/816,520

Applicant(s)

VANDERBERG ET AL.

Examiner

John K. Fristoe Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/29/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 10-14 have been considered but are moot in view of the new ground(s) of rejection. Since the new grounds of rejection were not necessitated by Applicants' amendment the instant Office action remains Non-final.

### ***Information Disclosure Statement***

2. The information disclosure statement filed 7/29/2005 is acknowledged by the examiner.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 10, 11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,082,247 (Owens et al.). Owens et al. disclose a knife gate comprising a valve body (26) comprising mating halves, a flow channel (figure 10), a knife gate (22), a gate seal (24) lining a perimeter of channel having an integral gasket (64) extending in a direction opposite the sealing surface, and wherein the gate seal (24) is an elastomeric material (col. 3, lines 44-45).

5. Claims 25, 26, and 28-30 are rejected under 35 U.S.C. 102(b) as being anticipated by German Patent DE 25 06 140 A1 (Sistag). Sistag discloses a chest seal for mounting in a chest seal chamber of a knife gate valve comprising a flow channel (4), a knife gate 93), at least one body member (20) having an expandable sealing surface (191), a chamber (figure 5) holding a packing (15), wherein the chest seal (20) surrounds the knife gate 93), having an expandable

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sealing surface (191) that is rounded and convex (similar seal in practice in figure 4), and wherein the seal (20) is elastomeric.

Regarding the packing material being “injected” into the chambers of the chest seal, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process (see MPEP 2113).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3, 5-8, 14-16, 18-20, 22, 32, and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,082,247 (Owens et al.) in view of German Patent DE 25 06 140 A1 (Sistag). Owens et al. disclose a knife gate comprising a valve body (26) comprising mating halves, a flow channel (figure 10), a knife gate (22), a gate seal (24) lining a perimeter of channel having an integral gasket (64) extending in a direction opposite the sealing surface, a chest seal (104) having a lot that receives the knife gate (22), and wherein the gate seal (24) is an elastomeric material (col. 3, lines 44-45) but lacks the chest seal having chambers that receive a packing. Sistag teaches a gate valve assembly having a knife valve (3), a chest seal (20) having a chamber (figure 5) holding packing (15), wherein the chamber is completely enclosed by the packing (figure 5), one or more scrapers (17), and a rounded convex sealing surface (figure 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to

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modify the gate valve assembly having a chest seal of Owens et al. by having chambers within the body of the chest seal that expand due to a packing within the chamber as taught by Sistag in order to more effectively seal the blade in the upper portion of the valve housing.

Regarding the packing material being “injected” into the chambers of the chest seal, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process (see MPEP 2113).

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,082,247 (Owens et al.) in view of German Patent DE 25 06 140 A! (Sistag) as applied to claim 1 above, and further in view of U.S. Pat. No. 4,206,905 (Dobler). Owens et al. modified above, disclose a knife gate comprising a valve body (26) comprising mating halves, a flow channel (figure 10), a knife gate (22), a gate seal (24) lining a perimeter of channel having an integral gasket (64) extending in a direction opposite the sealing surface, a chest seal (104) having a lot that receives the knife gate (22), wherein the gate seal (24) is an elastomeric material (col. 3, lines 44-45), and expandable chest seal chambers but lacks the gate seal and the chest seal being an integral member. Dobler teaches a gate valve assembly having a chest seal (8) and a gat seal (7) that are an integral member (figure 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the gate valve assembly of Owens et al. by making the chest seal and the gate seal a single member as taught by Dobler in order to reduce the number of parts within the invention for ease of assembly.

9. Claims 4, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,082,247 (Owens et al.) in view of German Patent DE 25 06 140 A! (Sistag) as applied

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to claims 3 and 22 above, and further in view of U.S. Pat. No. 5,205,317 (Neuerberg et al.).

Owens et al. modified above, disclose a knife gate comprising a valve body (26) comprising mating halves, a flow channel (figure 10), a knife gate (22), a gate seal (24) lining a perimeter of channel having an integral gasket (64) extending in a direction opposite the sealing surface, a chest seal (104) having a lot that receives the knife gate (22), wherein the gate seal (24) is an elastomeric material (col. 3, lines 44-45), and expandable chest seal chambers but lacks four scrapers on the chest seal. Neuerberg et al. teach a gate valve assembly comprising chest seal (54) and four scrapers (58) having at least one scraper above and below each side of the chest seal (figure 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the gate valve assembly of Owens et al. by having scrapers on each side of the chest seal as taught by Neuerberg et al. in order to prevent any material that is adhered to the knife valve from moving in the actuation assembly.

10. Claims 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,082,247 (Owens et al.) in view of German Patent DE 25 06 140 A1 (Sistag) as applied to claims 8 and 20 above, and further in view of U.S. Pat. No. 6,375,157 (Van De Lande). Owens et al. modified above, disclose a knife gate comprising a valve body (26) comprising mating halves, a flow channel (figure 10), a knife gate (22), a gate seal (24) lining a perimeter of channel having an integral gasket (64) extending in a direction opposite the sealing surface, a chest seal (104) having a lot that receives the knife gate (22), wherein the gate seal (24) is an elastomeric material (col. 3, lines 44-45), and expandable chest seal chambers but lacks the elastomeric material being EPDM. Van De Lande teaches a knife gate valve comprising a gate seal (14) made from EPDM (col. 4, lines 40-43). It would have been obvious to one of ordinary skill in

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the art at the time the invention was made to further modify the gate seal of Owens et al. by making the gate seal from EPDM as taught by Van De Lande in order for the seal to be durable and having better sealing characteristics under certain conditions.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,082,247 (Owens et al.) in view of U.S. Pat. No. 6,375,157 (Van De Lande). Owens et al. disclose a knife gate comprising a valve body (26) comprising mating halves, a flow channel (figure 10), a knife gate (22), a gate seal (24) having an integral gasket (64) extending in a direction opposite the sealing surface, and wherein the gate seal (24) is an elastomeric material (col. 3, lines 44-45) but lacks the elastomeric material being EPDM. Van De Lande teaches a knife gate valve comprising a gate seal (14) made from EPDM (col. 4, lines 40-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the gate seal of Owens et al. by making the gate seal from EPDM as taught by Van De Lande in order for the seal to be durable and having better sealing characteristics under certain conditions.

12. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,082,247 (Owens et al.) in view of German Patent DE 25 06 140 A1 (Sistag) as applied to claim 16 above, and further in view of U.S. Pat. No. 3,154,287 (Clandinin). Owens et al. modified above, disclose a knife gate comprising a valve body (26) comprising mating halves, a flow channel (figure 10), a knife gate (22), a gate seal (24) lining a perimeter of channel having an integral gasket (64) extending in a direction opposite the sealing surface, a chest seal (104) having a lot that receives the knife gate (22), wherein the gate seal (24) is an elastomeric material (col. 3, lines 44-45), and expandable chest seal chambers but lacks the chest seal being a single

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body that peripherally surrounds the knife gate slot. Clandinin teaches a gate valve assembly having a chest seal (60) that is a single body that surrounds the gate valve (52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the gate valve assembly of Owens et al. by making the chest seal being a single body that peripherally surrounds the knife gate as taught by Clandinin in order to more effectively seal the periphery of the knife gate.

13. Claim 27 rejected under 35 U.S.C. 103(a) as being unpatentable over DE 25 06 140 A! (Sistag) in view of U.S. Pat. 3,154,287 (Clandinin). Sistag discloses a chest seal for mounting in a chest seal chamber of a knife gate valve comprising a flow channel (4), a knife gate 93), at least one body member (20) having an expandable sealing surface (191), a chamber (figure 5) holding a packing (15), wherein the chest seal (20) surrounds the knife gate 93), having an expandable sealing surface (191) that is rounded and convex (similar seal in practice in figure 4), and wherein the seal (20) is elastomeric but lacks the chest seal being a single body that peripherally surrounds the knife gate slot. Clandinin teaches a gate valve assembly having a chest seal (60) that is a single body that surrounds the gate valve (52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the gate valve assembly of Sistag by making the chest seal being a single body that peripherally surrounds the knife gate as taught by Clandinin in order to more effectively seal the periphery of the knife gate.

14. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 25 06 140 A! (Sistag) in view of U.S. Pat. No. 6,375,157 (Van De Lande). Sistag discloses a chest seal for mounting in a chest seal chamber of a knife gate valve comprising a flow channel (4), a knife



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gate 93), at least one body member (20) having an expandable sealing surface (191), a chamber (figure 5) holding a packing (15), wherein the chest seal (20) surrounds the knife gate 93), having an expandable sealing surface (191) that is rounded and convex (similar seal in practice in figure 4), and wherein the seal (20) is elastomeric but lacks the elastomeric material being EPDM. Van De Lande teaches a knife gate valve comprising a gate seal (14) made from EPDM (col. 4, lines 40-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the gate seal of Sistag by making the gate seal from EPDM as taught by Van De Lande in order for the seal to be durable and having better sealing characteristics under certain conditions.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Fristoe Jr. whose telephone number is (571) 272-4926. The examiner can normally be reached on Monday-Friday, 7: 00 a.m-4: 30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine R. Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John K. Fristoe Jr.  
Examiner  
Art Unit 3751

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10/24/05